



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/054,103	10/25/2001	Benjamin J. Parker	1689 (15724)	3674

33272 7590 04/25/2006

SPRINT COMMUNICATIONS COMPANY L.P.  
6391 SPRINT PARKWAY  
MAILSTOP: KSOPHT0101-Z2100  
OVERLAND PARK, KS 66251-2100

EXAMINER
----------

BATES, KEVIN T

ART UNIT	PAPER NUMBER
----------	--------------

2155

DATE MAILED: 04/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/054,103	<b>Applicant(s)</b> PARKER ET AL.	
	<b>Examiner</b> Kevin Bates	<b>Art Unit</b> 2155	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 06 March 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

***Response to Amendment***

This Office Action is in response to a communication made on March 6, 2006.

Claims 1-7 are pending in the application

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sitaraman (6427170) in view of Middledorp (5341496).**

**Regarding claim 1**, Sitaraman discloses a method of managing user connection sessions with a gateway in a computer network (Column 8, lines 23 – 28), said method comprising the steps of:

storing user data on said gateway in response authentication by said user  
(Column 8, lines 23 – 28);

storing user status information in a table in a RADIUS server during times that an authenticated user session is established with said gateway (Column 8, lines 29 – 38; Column 7, lines 8 – 12);

deleting said user status information from said table when said authenticated user session is terminated (Column 8, lines 32 – 38);

said gateway routing said user traffic in response to said user data (Column 7, line 65 – Column 8, line 12).

Sitaraman does not explicitly indicate detecting a failure of said gateway wherein said stored user data is lost;

said gateway sending a request to said RADIUS server to provide said user status information and user data corresponding to each user in said table; storing said user data on said gateway; and

said gateway routing said user traffic to continue said authenticated user session in response to said user data and said user status information without requiring re-authentication following said failure.

Middledorp teaches detecting a failure of said gateway wherein said stored user data is lost (Column 6, lines 38 – 41); said gateway sending a request to said server to provide said user status information and user data corresponding to each user in said table (Column 7, lines 10 – 13; Column 4, lines 55 – 63, where when a gateway fails, the objects that the gateway is managing are moved onto another gateway while the node is down, then when the gateway is restored it sends a message that the gateway is recovered and the objects it was managing are returned to the gateway); storing said user data on said gateway; and said gateway routing said user traffic to continue said user session in response to said user data and said user status information without requiring re-authentication following said failure (Column 4, lines 55 – 62).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Middledorp's teaching of network node recovery in Sitaraman's system in order to allow Sitaraman's system to recover from faults without having any downtime on the communication sessions.

Sitaraman also does not explicitly indicate that the gateway and the RADIUS server are running on separate machines, but Sitaraman discloses that the preferred embodiment has them running on the same machine, but has different embodiments which they could be located on separate machines (Column 7, lines 7 – 10).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the gateway and RADIUS server on separate machines according to a possible embodiment in Sitaraman's disclosure in order to allow restarting of systems in case of failure without affecting the RADIUS server (Grant, Column 2, lines 46 – 65).

**Regarding claim 2**, Sitaraman discloses the method of claim 1, wherein said user status information includes an IP address assigned to said user for said session (Sitaraman, Column 8, lines 35 – 38).

**Regarding claim 3**, Sitaraman discloses the method of claim 1.

Sitaraman does not explicitly indicate said detecting step is comprised of a power-up initialization.

Middledrop discloses a system which detecting a failure happens when any type of failure occurs, the monitor realizes any type of failure has occurred, then goes into the steps of recovery from said failure (Column 4, lines 43 – 47).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Middeldorp's teaching of network node recovery in Sitaraman's system in order to allow Sitaraman's system to recover from faults without having any downtime on the communication sessions.

**Regarding claim 4,** Sitaraman discloses the method of claim 1.

Sitaraman does not explicitly indicate the step of requesting said RADIUS server to provide said user status information and said user data is included in a boot-up sequence of said gateway.

Middledorp discloses that the request is made to recover the connection information in response to the recovery or reboot of the gateway (Column 7, lines 10 – 13; Column 4, lines 55 – 63).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Middledorp's teaching of network node recovery in Sitaraman's system in order to allow Sitaraman's system to recover from faults without having any downtime on the communication sessions.

**Regarding claim 5,** Sitarama discloses the method of claim 1.

Sitarama does not explicitly indicate that said user data comprises a host object and a connection object.

Middledorp discloses that said user data comprises a host object (Column 4, lines 3 – 12) and a connection object (Column 4, lines 30 – 49).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Middledorp's teaching of network node recovery in Sitaraman's system in order to allow Sitaraman's system to recover from faults without having any downtime on the communication sessions.

**Regarding claim 6,** Sitarama discloses the method of claim 5.

Sitarama does not explicitly indicate said step of storing user status information in the table is delayed until a connection object is created for said user.

Middledrop discloses a system in which said step of storing user status information in the table is delayed until a connection object is created for said user (Column 5, lines 1 – 20, where both connection and host objects are stored together in the same data structure and updated in the status table together).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Middledorp's teaching of network node recovery in Sitaraman's system in order to allow Sitaraman's system to recover from faults without having any downtime on the communication sessions.

**Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sitaraman in view of Middledorp as applied to claims 1-6 above, and further in view of Zhang (6253327).**

**Regarding claim 7,** Sitaraman discloses the method of claim 1.

Sitaraman does not explicitly indicate that said gateway is comprised of a service selection gateway.

Zhang discloses a gateway coupled to an AAA server (Column 6, lines 5 – 15). Zhang teaches that the gateway should be a service selection gateway (Column 5, lines 23 – 32).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Zhang's teachings in Sitaraman's disclosure in order to use

a protocol gateway that is able to give the client single sign in access to multiple domains and destinations (Column 5, lines 26 – 32).

***Response to Arguments***

Applicant's arguments filed March 6, 2006 have been fully considered but they are not persuasive.

The applicant argues that the reference Sitaraman in combination with Middledorp, does not disclose the claimed invention. More specifically that Sitaraman does not disclose storing user information on a separate system from the gateway in order to be still available if a fault occurs on the gateway and that Middledorp, does not disclose user information, thus cannot disclose recovering user information. The examiner disagrees, Sitaraman teaches the idea of storing user information separately from the gateway server (whether on a separate application on the same server or on a separate server, Column 8, lines 28 – 38, Column 7, lines 8 – 12), but does not disclose the idea of using this separation as a fault recovery system. Middledorp teaches a gateway system with fault tolerance (Column 1, lines 42 – 52), as part of his gateway system, it is disclosed that the information that the gateway is using to maintain information sessions between network nodes is stored redundantly, and when a failure occurs the system uses this information redundancy and proceeds to find and restore the session information onto the recovered gateway device and proceed to operate the same user sessions, without having to reestablish the connections (Column 4, lines 55 – 62). The reference are analogous because they both refer to a gateway system that handles communication sessions and updates and stores the session information in a



separate location. Plus Middeldorp has the added teaching of using the redundant information to restore the user sessions at a failed gateway to speed up the recovery possible, so the combination is proper due to the analogous art and the motivation to combine.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Bates whose telephone number is (571) 272-3980. The examiner can normally be reached on 8 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on (571) 272-4006. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KB

KB  
April 17, 2006

  
SALEH NAJJAR  
SUPERVISORY PATENT EXAMINER